

pending in the California case. Because NXP NL and NXP USA are in privity for the purposes of Impinj's claims in this case, NXP NL is bound and/or will soon be bound by the verdict and any subsequent judgment issued in the California case. Such estoppel applies or will apply to infringement, validity, the calculation of damages, and the finding that the infringement of one of the patents was willful. This case is also related, at least in connection with the parties, to a case pending in this District styled *Impinj, Inc. v. NXP USA, Inc. and NXP Semiconductors Netherlands B.V.*, Case No. 6:21-cv-00530-ADA ("the Texas case"). The Texas case involves the same parties but different patents.

THE PARTIES

2. Impinj is a Delaware corporation with its principal place of business in Seattle, Washington. Impinj is headquartered at 400 Fairview Ave. N, Suite 1200, Seattle, Washington 98109.

3. Defendant NXP NL is a company organized and existing under the laws of the Netherlands, with its principal place of business in Eindhoven, Netherlands. NXP NL is a subsidiary of NXP Semiconductors N.V. and is an affiliate of NXP USA, Inc. "NXP" refers herein to the family of NXP companies collectively, including corporate affiliates of NXP NL and NXP USA.

JURISDICTION AND VENUE

4. This action arises under the patent laws of the United States, 35 U.S.C. § 1, *et seq.* This Court's jurisdiction over this action is proper under 28 U.S.C. §§ 1331 (federal question) and 1338 (patent claims).

5. NXP NL is subject to personal jurisdiction in this case because, at the least, it engages in substantial activities in the State of Texas, including the distribution and sale of products to NXP USA. NXP NL also distributes and/or sells the accused UCODE 8 and UCODE 9 ICs (collectively the "Accused Products") outside the State of Texas, knowing that such

products will be packaged into tags and labels that will be sold, distributed and used in the State of Texas. NXP NL further sends employees and personnel to the State of Texas to collaborate with NXP USA, which is headquartered in this District, on the sales and distribution of the Accused Products. Upon information and belief, NXP NL oversees the sale of Accused Products to NXP USA for distribution in the United States.

6. Defendant has thus availed itself of the benefits and privileges of conducting business in the State of Texas and the exercise by this Court of personal jurisdiction over NXP NL would not offend traditional notions of fair play and substantial justice.

7. In addition, in the Texas case, NXP NL originally moved to dismiss for lack of personal jurisdiction (Dkt. No. 116) but, after jurisdictional discovery, withdrew the motion. (Dkt. No. 157).

8. Venue is proper against NXP NL pursuant to 28 U.S.C. § 1391(c)(3) because it is a foreign entity that is not a resident of any judicial district in the United States.

IMPINJ AND THE RAIN RFID BUSINESS

9. Impinj and NXP collectively sell 90% or more of the RAIN RFID ICs distributed in the world. In addition to RAIN RFID ICs, Impinj also distributes and/or sells other RAIN RFID products and solutions, including RAIN RFID reader ICs, RAIN RFID readers and gateways, and related software that enable users to wirelessly connect and track vast numbers of products. Impinj sold the very first RAIN RFID IC and has taken extensive efforts to create and build the RAIN RFID industry. End customers of the parties' RAIN RFID ICs include retailers, such as Walmart and Macy's, and other entities that seek to connect everyday products to the internet for the purposes of inventory or tracking.

10. The parties sell RAIN RFID ICs primarily to inlay manufacturers, who connect antennas to the ICs to create RFID inlays, tags and/or labels. Those inlays, tags or labels are then sold to end users, such as retailers.

11. Forty percent or more of the parties' RAIN RFID ICs are incorporated into RFID tags or labels that are sold, distributed and used in the United States. The majority of the RAIN RFID ICs used in such tags and labels, however, are delivered to inlay manufacturers and label converters outside the United States. For example, Avery Dennison is a leading manufacturer of inlays, tags and labels that incorporate Impinj's and NXP NL's ICs, including the Accused Products. The vast majority of RAIN RFID ICs sold to Avery Dennison, however, including the Accused Products, are delivered to manufacturing facilities outside the United States.

12. For many of its customers, including Avery Dennison, NXP NL knows at the time of sale that approximately 40% of the Accused Products will be incorporated into tags and labels that will be sold, distributed and used in the United States.

13. In addition, NXP NL, in collaboration with its affiliates, including NXP USA, induces inlay manufacturers, including Avery Dennison, to distribute tags and labels including the Accused Products in the United States. NXP NL induces such distribution by, among other things, attending trade shows in the United States, meeting with end customers in the United States, and generally promoting the Accused Products for incorporation into tags and labels that will be distributed and used in the United States.

14. Impinj's RAIN RFID products include Monza RFID tag chips. The first RAIN RFID IC was the Monza 1 product sold by Impinj. Impinj has also sold other Monza ICs including, in part, the Monza R6 introduced in approximately 2014. At the time of its introduction, the Monza R6 was the leading RAIN RFID IC in the industry, in terms of both features and performance. The patented innovations at issue in this litigation were both incorporated into the Monza R6 IC. Following the introduction of the Monza R6 IC, NXP copied patented features of that product and incorporated them into the Accused Products. NXP's UCODE 8 product, for example, was introduced in approximately May 2017, and incorporated

the patented innovations in both of the patents at issue. Those innovations were further incorporated into NXP's UCODE 9 product, introduced in 2021.

NXP NL'S ACTS OF INFRINGEMENT

15. After Impinj became aware of NXP NL's UCODE 8 ICs, it advised NXP, by letter dated August 11, 2017, that such ICs, and any associated RFID tags, were likely to infringe many U.S. patents owned by Impinj, which were listed by patent number.

16. In response, NXP by letter dated September 7, 2017, indicated it would need to see a "claim chart" before it would discuss the issues.

17. By letter dated September 14, 2017, Impinj suggested the parties meet in person, and provided a draft non-disclosure agreement to facilitate such discussions.

18. NXP indicated it would not enter into any non-disclosure agreement but reiterated its request for claim charts.

19. After September 14, 2017, Impinj and NXP exchanged correspondence relating to infringement of Impinj's patents by NXP's UCODE 8 ICs. Impinj provided NXP, among other things, claim charts detailing how NXP infringes the patents asserted below. Impinj also requested, on multiple occasions, that the parties meet to try to resolve the issues.

20. Despite numerous and repeated requests, NXP has refused to meet with Impinj to address its infringement of Impinj's patents. NXP's refusal led Impinj to file the California case.

COLLATERAL ESTOPPEL EFFECTS OF CALIFORNIA CASE

21. NXP NL is an affiliate of NXP USA and is in privity with NXP USA for the claims asserted in this Complaint.

22. NXP USA was a defendant in the California case. In the California case, Impinj asserted that NXP USA infringed the two patents at issue here--U.S. Patent No. 8,115,597 ("the '597 Patent") and U.S. Patent No. 9,633,302 ("the '302 Patent"), based on its sale of UCODE 8 and UCODE 9 ICs in the United States.

23. During discovery in the California case, NXP USA initially asserted that all sales of UCODE 8 and UCODE 9 products to Avery Dennison, whether delivered inside or outside the United States, were made by NXP USA. NXP USA later, however, after the close of discovery, contended that NXP USA was only “allocated” sales to Avery Dennison of products that were shipped directly to the United States.

24. When Impinj sought to amend the Complaint to add NXP NL as a defendant, for the purposes of sales of the UCODE 8 and UCODE 9 ICs delivered outside the United States, NXP successfully objected on the basis that the amendment was untimely. NXP’s position thus required the filing of this separate case.

25. In the California case, NXP USA denied that it was infringing the ’597 and ’302 patents, and also asserted that the patents are invalid.

26. The infringement and invalidity claims went to a jury trial in the California case beginning on July 5, 2023.

27. The jury in the California case rendered a verdict, a copy of which is attached hereto as Exhibit 1, finding NXP USA was proven to have infringed the ’597 patent based on its sales of UCODE 8 and UCODE 9 ICs, and that NXP USA had failed to prove that the ’597 patent was invalid.

28. The jury in the California case further found that NXP USA had been proven to infringe the ’302 patent by reason of its sale of UCODE 8 and UCODE 9 ICs, and certain claims of the ’302 patent had not been proven to be invalid.

29. The jury further found that NXP USA’s infringement of the ’302 patent was willful.

30. NXP USA and NXP NL have worked and continue to work in concert in connection with the marketing, sale, and distribution of the UCODE 8 and UCODE 9 ICs. NXP

NL distributes and sells the Accused Products to NXP USA, and coordinates the design, manufacturing and storage of such Accused Products with other NXP entities.

31. NXP NL and NXP USA worked in concert and collaborated in connection with NXP's defense of the California case.

32. NXP NL is bound by collateral estoppel by the jury verdict in the California case that claims 1 and 15 of the '597 patent read on the UCODE 8 and UCODE 9 ICs and were not proven invalid or at least collateral estoppel will apply when any such judgment issues in the California case.

33. NXP NL is bound by collateral estoppel by the jury verdict in the California case that claims 1 and 3 of the '302 patent read on the UCODE 8 and UCODE 9 ICs and were not proven invalid or at least collateral estoppel will apply when any such judgment issues in the California case.

34. NXP NL is bound by collateral estoppel by the jury verdict in the California case that NXP USA's infringement of the '302 patent was willful or at least collateral estoppel will apply when any such judgment is entered in the California case.

35. The jury in the California case found Impinj had proven that but for NXP USA's infringement, Impinj would have made 57% of the sales NXP USA made of Accused Products. Based on this lost profits finding, the jury granted Impinj lost profit damages, up to the time of trial, of \$17.68 million for infringement of the '597 patent and overlapping \$17.79 million for infringement of the '302 patent.

36. Because the damages issues were fully litigated and are the same as those against NXP NL in this case, NXP NL is bound by collateral estoppel in connection with such lost profits findings, or at least collateral estoppel will apply when any such judgment issues in the California case.

37. The jury found in the California case that for sales not subject to lost profits, Impinj was entitled to a royalty of 3% for infringing sales of the '597 patent and 1.5% for infringing sales of the '302 patent up to the time of trial.

38. Because the damages issues were fully litigated and are the same as those against NXP NL in this case, NXP NL is bound by collateral estoppel in connection with such reasonable royalty findings, or at least collateral estoppel will apply when any such judgment issues in the California case.

NXP NL'S INFRINGEMENT OF U.S. PATENT NO. 9,633,302

39. Impinj realleges and incorporates by reference the allegations in paragraphs 1-38 above.

40. Impinj owns U.S. Patent No. 9,633,302 ("the '302 Patent") attached as Exhibit 2, which is directed to an RFID IC with an inventive channel design.

41. Claim 1 of the '302 Patent reads as follows:

1. A Radio Frequency Identification (RFID) integrated circuit (IC) comprising:

an IC substrate;

a first antenna contact disposed on, and confined within a perimeter of, a surface of the IC substrate; wherein:

the first and second antenna contacts are separated by a channel having a first end, a second end opposite the first end, and a center between the first end and the second end;

the channel spans a majority of a width of the IC substrate;

a first transverse channel cross-section at the first end is substantially the same size as a second transverse channel cross-section at the second end and substantially larger than a third transverse channel cross-section at the center; and

the channel is shaped to facilitate a fluid flow from the center to the first and second ends.

42. Claim 3 of the '302 Patent reads as follows:

3. The RFID IC of claim 1, wherein the channel has a non-convex shape.

43. NXP NL has directly infringed the '302 patent, including claims 1 and 3 of the patent, by selling, offering for sale, and/or importing into the United States the Accused Products.

44. NXP NL has induced infringement of the '302 patent, including claims 1 and 3 of the patent, by selling the Accused Products to entities outside of the United States, including Avery Dennison, knowing that a significant portion of such Accused Products will be incorporated into tags and labels that will be distributed in the United States.

45. NXP NL has continued its infringing activities despite knowledge of the '302 Patent (including knowledge from correspondence with Impinj and the allegations in the California case), and such infringement had been and continues to be egregious and willful.

46. NXP NL's infringement has caused Impinj substantial and irreparable harm, entitling Impinj to an award of damages and injunctive relief.

NXP NL'S INFRINGEMENT OF U.S. PATENT NO. 8,115,597

47. Impinj realleges and incorporates by reference the allegations in paragraphs 1-46 above.

48. Impinj owns U.S. Patent No. 8,115,597 ("the '597 Patent"), attached as Exhibit 3, which is directed to an IC for RFID tag with an inventive circuit design for a power rectifier.

49. Claim 1 of the '597 Patent reads as follows:

1. A power rectifier for a Radio Frequency Identification tag circuit, comprising:

a first antenna input node for receiving a first phase of an alternating RF wireless signal;

a second antenna input node for receiving a second phase of the alternating RF wireless signal which is substantially opposite to the first phase;

a plurality of serially coupled stages, at least one of the stages including:

a first synchronous element with a first beginning coupled to receive the second phase and a first ending, the first synchronous element including:

a first transistor having an input terminal at the first beginning an output terminal, and a gate coupled to receive the first phase; and

a second transistor having an input terminal, an output terminal at the first ending, and a gate coupled to receive the second phase, in which the input terminal of the second transistor is connected to the output terminal of the first transistor at a first intermediate node, so as to form a first charge-accumulating path between the first beginning and the first ending, and there is no charge-accumulating path between the first beginning and the first ending other than the first path; and

a second synchronous element with a second beginning to receive a first phase and a second ending, the second synchronous element including:

a third transistor having an input terminal at the second beginning, an output terminal, and a gate coupled to receive the second phase;

a fourth transistor having an input terminal, an output terminal at the second ending, and a gate coupled to receive the first phase, in which the input terminal of the fourth transistor is connected to the output terminal of the third transistor at a second intermediate node so as to form a second charge-accumulating path between the second beginning and the second ending, and there is no charge-accumulating path between the second beginning and the second ending other than the second path; and “

in which the second beginning is coupled to the first ending.

50. Claim 15 of the '597 Patent reads as follows:

15. A rectifier for a Radio Frequency Identification tag circuit, comprising:

a first antenna input node for receiving a first phase of an alternating RF wireless signal;

a second antenna input node for receiving a second phase of the alternating RF wireless signal which is substantially opposite to the first phase;

a zeroth stage transistor having an input terminal connected to ground, an output terminal, and a gate coupled to receive the first phase;

a plurality of serially coupled stages, at least one of the stages including:

a first synchronous element with a first beginning coupled to receive the second phase and a first ending, the first synchronous element including:

a first transistor having an input terminal at the first beginning coupled to the output terminal of the zeroth stage transistor, an output terminal, and a gate coupled to receive the first phase;

a second transistor having an input terminal, an output terminal at the first ending, and a gate coupled to receive the second phase, in which the input terminal of the second transistor is connected to the output terminal of the first transistor at a first intermediate node so as to form a first charge-accumulating path between the first beginning and the first ending, and there is no charge-accumulating path between the first beginning and the first ending other than the first path; and

a second synchronous element with a second beginning to receive the first phase and the second ending, the second synchronous element including:

a third transistor having an input terminal at the second beginning, an output terminal, and a gate coupled to receive the second phase;

a fourth transistor having an input terminal, an output terminal at the second ending, and a gate coupled to receive the first phase with which the input terminal of the fourth transistor is connected to the output terminal of the third transistor at a second intermediate node so as to form a second charge-accumulating path between the second beginning and the second ending, and there is no charge-accumulating path between the second beginning and the second ending other than the second path; and in which the second beginning is coupled to the first ending.

51. NXP NL has directly infringed the '597 patent, including claims 1 and 15 of the patent, by selling, offering for sale, and/or importing into the United States the Accused Products.

52. NXP NL has induced infringement of the '597 patent, including claims 1 and 15 of the patent, by selling the Accused Products to entities outside of the United States, including Avery Dennison, knowing that a significant portion of such Accused Products would be incorporated into tags and labels that will be distributed in the United States.

53. NXP NL has continued its infringing activities despite knowledge of the '597 Patent (including knowledge from correspondence with Impinj and the allegations in the California case), and such infringement had been and continues to be egregious and willful.

54. NXP NL's infringement has caused Impinj substantial and irreparable harm, entitling Impinj to an award of damages and injunctive relief.

JURY DEMAND

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Impinj demands a trial by jury on all issues triable of right by a jury.

REQUEST FOR RELIEF

Wherefore, Impinj requests the following relief:

1. A judgment that NXP NL has infringed one or more claims of each of the '302 and '597 patents, and that such infringement is willful;

2. A preliminary and permanent injunction enjoining NXP NL and its officers, agents, servants, employees, attorneys and any other persons who are in active concert or participation with such persons, from making, selling, using, offering for sale or importing its UCODE 8, UCODE 9, or any other IC that is not colorably different;

3. An award of damages, including lost profits, but no less than a reasonable royalty under 35 U.S.C. § 284 arising from such infringement;

4. Increased damages pursuant to 35 U.S.C. § 285 or as otherwise permitted by law;
5. An award of attorneys' fees and costs pursuant to 35 U.S.C. § 285 or as otherwise permitted by law; and
6. For such other relief as the Court deems just and proper.

Dated: August 11, 2023

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